

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



April 10, 2020

Christine Cowsert  
VP, Gas Asset Management and System Operations  
Pacific Gas and Electric Company  
Gas Transmission and Distribution Operations  
6121 Bollinger Canyon Road  
San Ramon, CA 94583

GI-2020-03-PGE-29-11

**SUBJECT:** General Order (GO) 112-F Gas Inspection of PG&E's Welding and Joining Program, Procedures and Records.

Dear Ms. Cowsert:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted an inspection of Pacific Gas & Electric Company's (PG&E) Welding and Joining Program, Procedures, and Records from March 2 to March 13, 2020.

SED's findings are noted in the Attached Post-Inspection Written Preliminary Findings (Summary) section of this letter. The Summary reflects only those particular procedures and records SED inspected during the inspection. Within 30 days of your receipt of this letter, please provide a written response indicating the measures taken by PG&E to address the concerns noted in the Summary.

If you have any questions, please contact James Zhang at (916) 928-2106 or by email at [James.Zhang@cpuc.ca.gov](mailto:James.Zhang@cpuc.ca.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Terence Eng".

Terence Eng, P.E.  
Program Manager  
Gas Safety and Reliability Branch  
Safety and Enforcement Division

Enclosure: Post-Inspection Written Preliminary Findings

cc: Susie Richmond, PG&E Gas Regulatory Compliance  
Alberta Ekukinam, PG&E Gas Regulatory Compliance  
Vincent Tanguay, PG&E  
Dennis Lee, SED  
Claudia Almengor, SED

# Post-Inspection Written Preliminary Findings

**Dates of Inspection:** 03/02/20 – 03/13/20

**Operator:** PACIFIC GAS & ELECTRIC CO

**Operator ID:** 15007 (primary)

**Inspection Systems:** PG&E Welding and Joining Transmission

**Assets (Unit IDs):** PG&E Welding and Joining (Specialized Inspection (86283)

**System Type:** GT

**Inspection Name:** PG&E Welding and Joining - Transmission

**Lead Inspector:** James Zhang

**Operator Representative:** Alberta Ekukinam

## Unsatisfactory Results

*No Preliminary Findings.*

## Concerns

### Design and Construction: Construction Weld Inspection (DC.WELDINSP)

1. Question Does the process require welds that are unacceptable to be removed and/or repaired as Text specified by 192.245?

References 192.245 (192.303)

Assets Covered PG&E Main Office Welding and Joining (Specialized Inspection (PG&E Welding & Joining - )

Issue Summary During procedure review, SED found Utility Procedure TD-4160P-20 references the obsolete procedure TD-4100P-05 "Selection of Steel Gas Pipeline Repair Methods" which has been replaced by TD-4820P-05. PG&E stated that the next planned review is April 2020. Please review the Utility Procedures for this reference and provide SED with an update when the revision(s) are complete.

## Design and Construction: Construction Welding Procedures (DC.WELDPROCEDURE)

2. Question Does the operator have written specifications requiring qualified welding procedures in Text accordance with 192.225?

References 192.225

Assets Covered PG&E Main Office Welding and Joining (Specialized Inspection (PG&E Welding & Joining - )

Issue Summary SED reviewed Welding Procedure Specifications for butt welds, such as 232Sc-G, and found they typically include text similar to, "Clamp Type: External when required: Remove after 25% of Root Pass under low-stress conditions; Remove after 50% of Root Pass under moderate-stress conditions. Internal when required: Remove after 100% of Root Pass completed."

SED recognizes that the WPS is available on site during welding, and welders are trained to follow the WPS, however, the WPS does not actually state when lineup clamps are required. TD-4160P-20, section 8.13, states, "Lineup clamps must be used when joining pipe 3 inches in nominal diameter and above." However, copies of TD-4160P-20 were not present during the welding practice that SED observed.

SED recommends modifying WPS documents to state when lineup clamps are required, or to refer the welder to the appropriate section of TD-4160P-20.

## Generic Questions: Generic Questions (GENERIC.GENERIC)

3. Question Generic question - please provide context in result notes. Text

References N/A

Assets Covered PG&E Main Office Welding and Joining (Specialized Inspection (PG&E Welding & Joining - )

Issue Summary SED reviewed the Welding Procedure Specification Table of several welding projects and found that the "Joint Design Detail" column did not specify the procedure(s) from which the Appendix originated. In two of the projects provided from "115 GT Projects (weld repair)", the Welding Procedure Specification Tables listed references to Appendixes & Figures as follows:

**PM 84008945** (from: 84008945\_Procedure-Welding\_0402-01.pdf) reference numbers 1-4 that are not included in the document:

Appendix 3, Fig. 4

Appendix 1, Fig. 1

Appendix 2, Fig. 5

Appendix 3, Fig. 4

**PM 84010100** (from: *84010100\_Procedure-Welding\_X6460.pdf*) reference numbers 1 & 2 that are not included in the document:

Appendix 1, Fig. 1

Appendix 3, Fig. 4

SED recommends modifying the "Joint Design Detail" column on the Welding Procedure Specification Table to refer the welder to Appendixes & Figures of the appropriate procedure(s).

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**Assets (Unit IDs):** PG&E Welding and Joining (Specialized Inspection (86283)

**System Type:** GD

**Inspection Name:** PG&E Welding and Joining - Distribution

**Lead Inspector:** James Zhang

**Operator Representative:** Alberta Ekukinam

## Unsatisfactory Results

*No Preliminary Findings.*

## Concerns

*No Preliminary Concerns.*